الوكالة الوطنية لتقنين المواصلات

Agence Nationale de Réglementation des Télécommunications

Information Technology Observatory)

Annual ICT indicators Collection Survey Households and Individuals 2012

May 2013

1. Introduction

The ninth edition of the national survey on ICT in Morocco initiated by the ANRT was carried out in keeping with the previous surveys to allow comparison and tracking of key indicators.

The Observatory of Information Technology aims to establish accurate, quantitative and shared knowledge of the state of the information society in Morocco. The observatory's objective is to:

- Complete information collected from operators in the fixed line, mobile and Internet services market and to process questions on how ICT is used and how users behave in the context of ICT in order to analyze qualitative aspects such as the drivers or the brakes on equipment and its use;
- Promote accurate, quantitative knowledge of the state of and developments in information society in Morocco;
- Provide communication support at the national level ;
- Be an official source of information for international databases (UIT, CNUCED, etc.) and be used in particular to calculate ICT indexes that classify countries with respect to their level of development in this area.

Year after year, the collection and tracking of a battery of key indicators in ICT allow ANRT to track both telecom market developments and some of the changes in progress within the Moroccan population, whose uses of ICT are being transformed, in particular with the democratization of the Internet.

Thanks to this study, the ANRT is able to orient and track the impact of regulatory decisions and governmental initiative that have been taken to support the development of ICT and to strengthen the extent that these technologies are being used and adopted by the Moroccan citizens.

2. Methodology

Recurrent studies carried out by the ANRT are used to measure the development of ICT equipment and its use within Moroccan households.

The survey collecting ICT indicators complies with the international recommendations of the Partnership on Measuring ICT for Development (ITU, WB, OECD, Eurostat, etc.).

The survey was conducted under the following constraints:

- Non-redundancy with already existent ANRT observatories;
- Compliance with the recommendations of the international organizations, allowing thereby for relevant comparison with other countries.

This survey aims to measure various types of ICT national indicators:

- **ICT services concerned**: 4 services are concerned: fixed line, mobile, computers and Internet.
- **Type of indicators measured** : the survey measures ICT equipment rates and uses.

It is once again a random survey conducted on a face-to-face basis with a target population of Moroccan aged between 12-65 y.o. representative of the social and regional differences of Morocco.

This survey was carried out during the first quarter of 2013 in a form and with characteristics similar to previous years; improvements were also made this year in order to improve sample representativeness.

Specific questions were moreover added to analyze new Internet uses (e.g. E-Commerce, E-Gov, Mobile Applicationss, etc.)

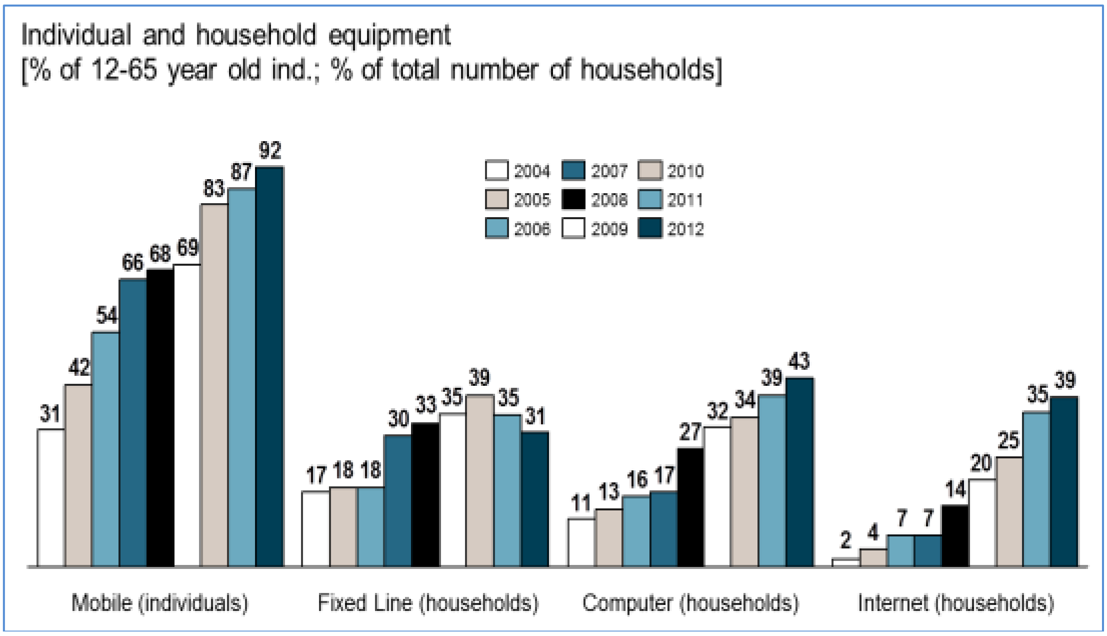
The target population of the "Individuals" survey is made up of people from 12 to 65 years of age living in an urban or a rural environment with electrification (97.7% of households in the rural environment have electrification according to the ONEE).

The reference base for the population to be studied was established in compliance with the 2004 census and with projections for 2012 made by "le Haut Commissariat au Plan" (HCP).

The questionnaires were administered face to face during the period running from January 8th to February 22th 2013.

3. ICT Equipment and Uses in the Kingdom in 2012

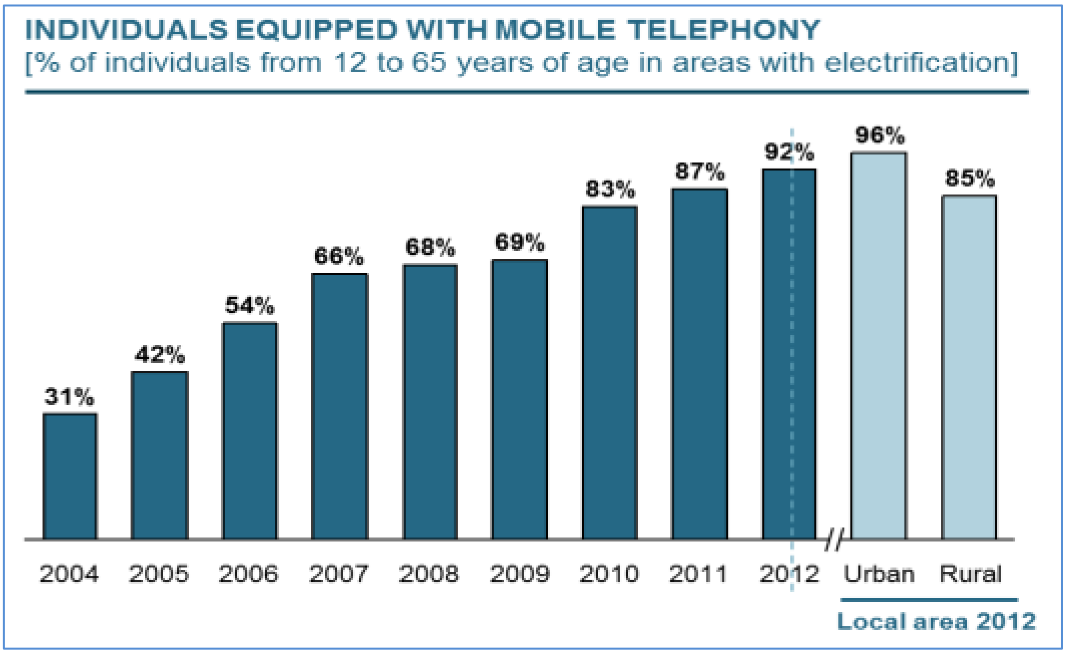
The results of the 2012 survey confirm the trends observed in previous years and also highlight turning points in the ICT equipment and usage by individuals.
Aside from fixed line telephony, which is losing ground for the second year in a row with a decline in limited mobility, levels of equipment have all increased in recent years and developments are positive for 2011-2012:



3.1. Mobile telephony equipment and uses among individuals

3.1.1. <u>The mobile telephone is continuing to increase its market penetration among individuals and reached 92% in 2012</u>

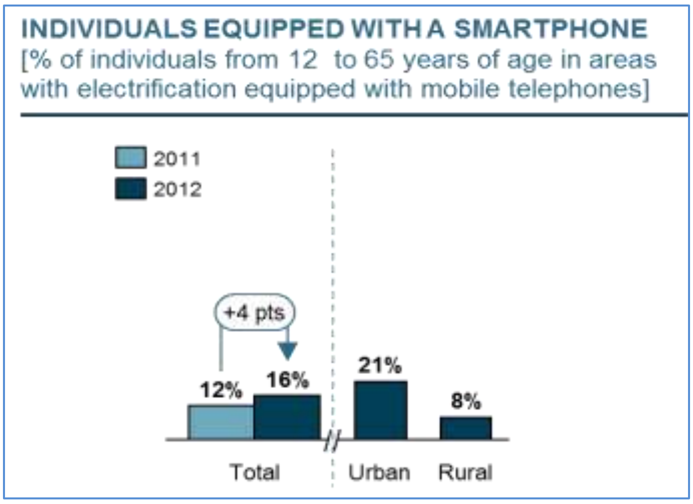
After a 14 points jump between 2009 and 2010, the mobile telephone continued to increase its market penetration slowly among individuals and reached 87% in 2011 then 92% in 2012 (+5 points between 2011 and 2012).



3.1.2. <u>Equipment rate is growing considerably for smartphones</u>

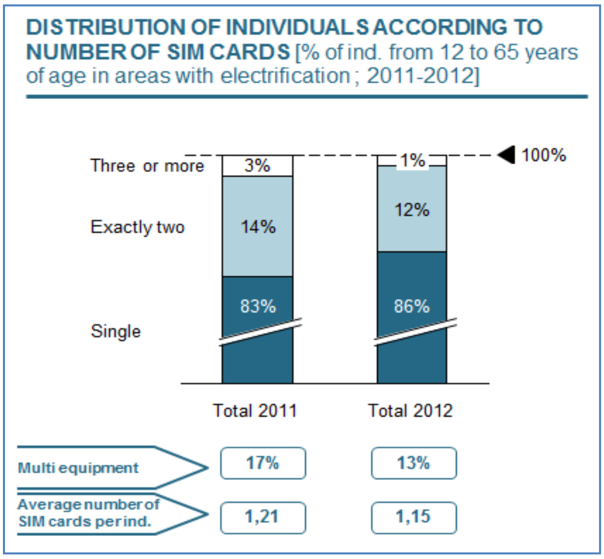
The smartphone equipment posted a strong growth this year (+30%). In 2012, 16% of individuals equipped with mobile phone have one, which corresponds to an estimated 3.6 million terminals. People in urban areas are better equipped than those in rural areas, with a significant difference of 13 points.

Smartphone sales are expected to increase further in 2013 with relatively high intentions equipment. More than 20% of unequipped people say they want to be equipped within 12 months.



3.1.3. <u>The number of multiple phones decreased : 1.15 mobile lines per equipped individual</u>

In 2012, nearly 13% of individuals equipped with mobile telephony have multiple handsets, with in general two mobile phones. Overall, individuals equipped with mobile have on average 1.15 SIM cards each which is in decrease compared to 2011 (1.21 SIM cards per individual equipped).



The number of multiple phones is most often due to the desire to optimize the total telephone bill by taking advantage of promotional offers and benefiting from better rates for each line.

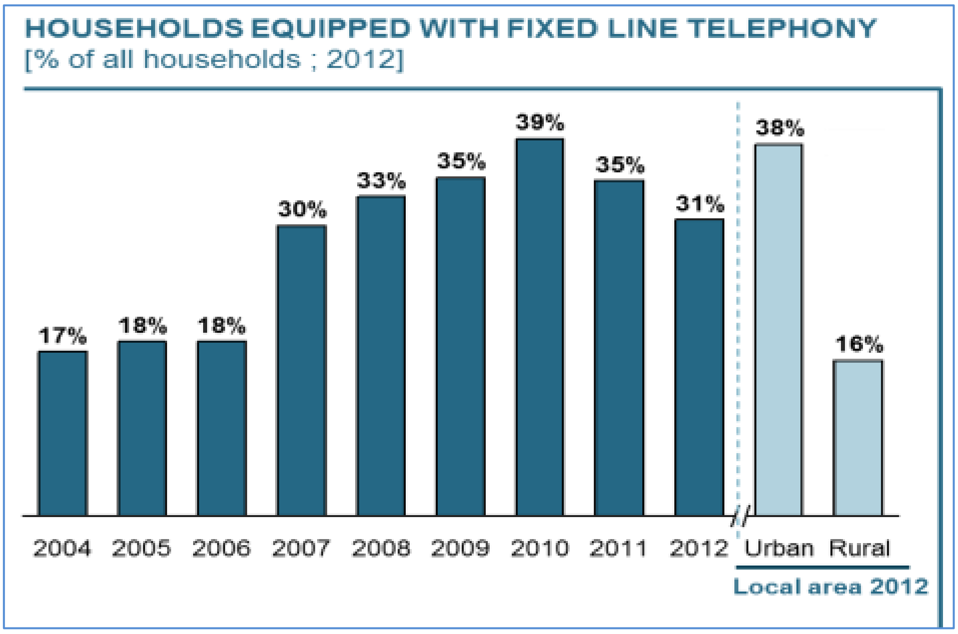
3.2. Fixed line equipment and uses among households

3.2.1. <u>Driven by the drop in restricted mobility, the level of fixed line telephony equipment continue its decrease</u>

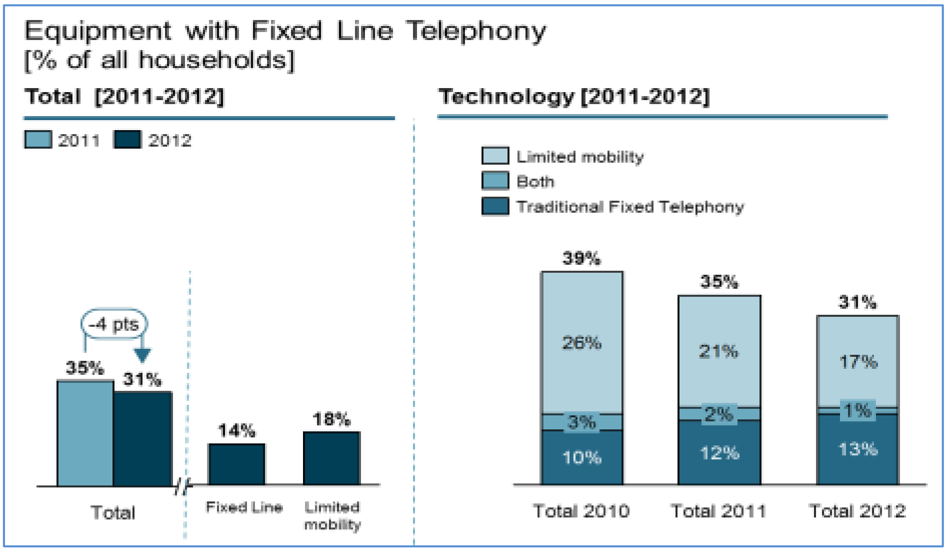
Fixed line telephony equipment experienced very strong growth in 2007 partly due to the arrival of new fixed line telephony offers with limited mobility launched by the new operator.

After this significant increase, growth in fixed line penetration at the household level slowed down between 2007 and 2010, growing respectively from +2 to +4 points per year.

Rising steadily until 2010, the fixed telephony equipment rate of Moroccan households has dropped first in 2011 (4 points compared to 2010) and has registered a further decline of 4 points in 2012 to reach a penetration rate of 31%.

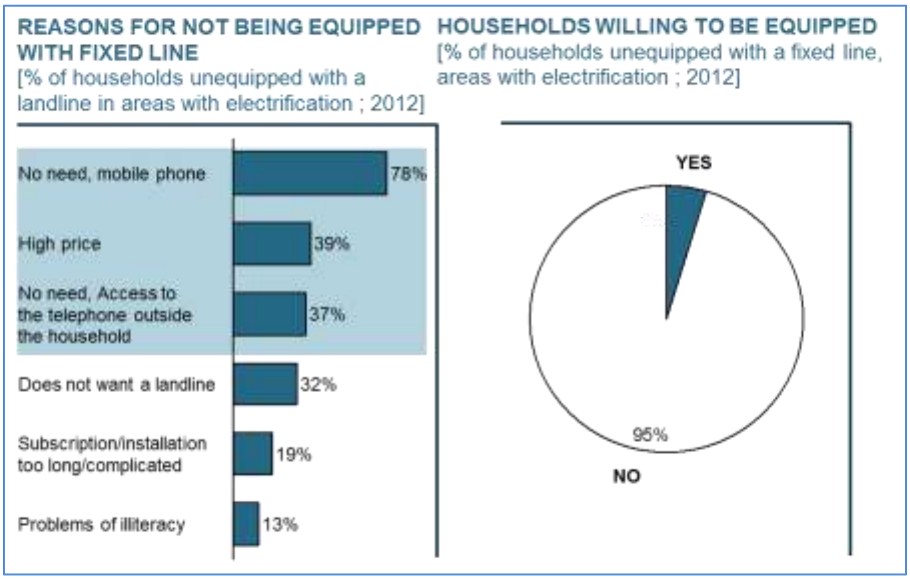


The decline in fixed line telephony was driven by the drop in limited mobility, which equips 18% of households in 2012, a major decline compared to 2011 (23%). The traditional fixed telephony equipment increases slightly over the period, driven by fixed Internet ADSL equipment.



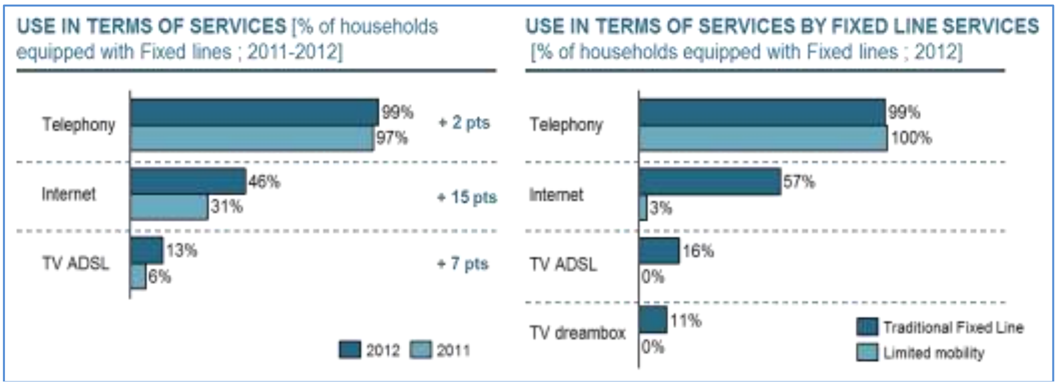
3.2.2. *The decline can be explained by the replacement of fixed lines by mobile telephones*

Fixed-mobile substitution greatly reduces the need for a fixed telephone line. Only 5% of non-equipped households plan to fit in the next 12 months, against 8% in 2011.



3.2.3. <u>The use of the Internet is the main factor of equipment for some households</u>

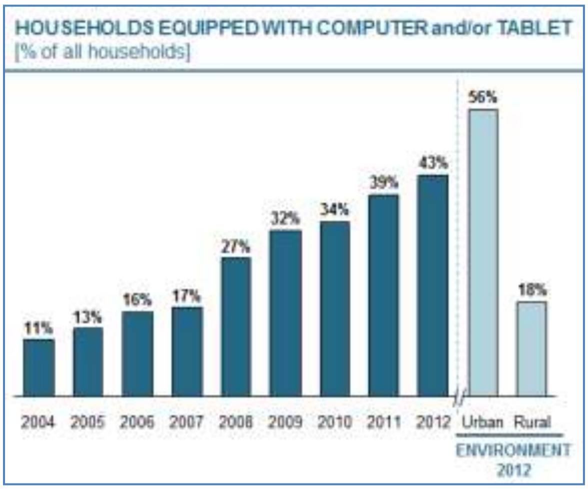
Fixed line equipment is above all centered on telephony while nonetheless being driven by the increase in demand for fixed broadband. It's indeed the main factor of equipment, with nearly 57% of equipped households.



3.3. Computer equipment within Households

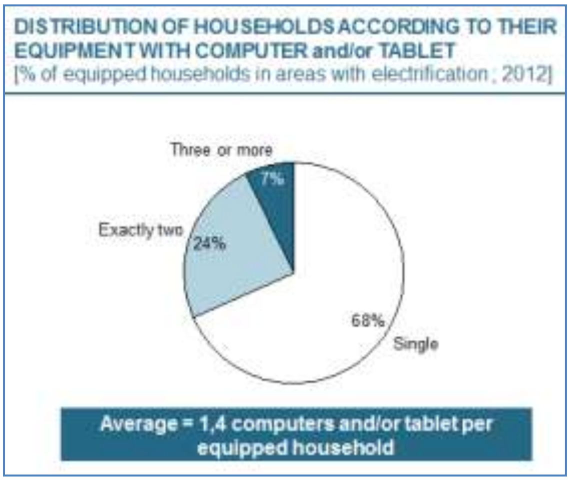
3.3.1. <u>Computer penetration among households is growing strongly : 43% in 2012</u>

The computer equipment rate at home has now reached 43% (or 4 points more than in 2011 and 32 more compared to 2004). Although equipment tends to be undergoing a democratization process, urban areas are still much more equipped than rural areas, with a differential of 38 points. Household computer equipment is highly variable according to socio-professional category, with high socio-professional categories and urban households being better equipped.



3.3.2. Equipped Households state that they own on average 1.4 computers

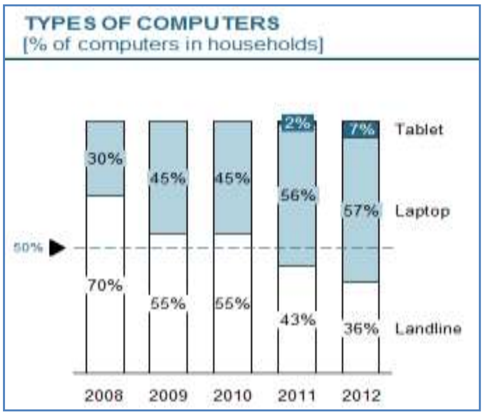
24% of equipped Moroccan households have 2 computers and 7% of equipped households have 3 computers or more. In total, 31% of households area mutli-equipped and on average, equipped households have 1.4 computers.



3.3.3. Tablets are growing strongly to reach 7% of overall computer market in 2012

While the share of laptops in Moroccan households had stabilized between 2009 and 2010, the decline in the desktop computer in favor of the laptop resumed in 2011. Laptops are more and more prevalent in households: 57% of equipment in 2012 against 56% in 2011 and 45% in 2010.

The tablets are emerging in 2011 and growth is fast enough to reach 7% of the overall computer market in 2012.



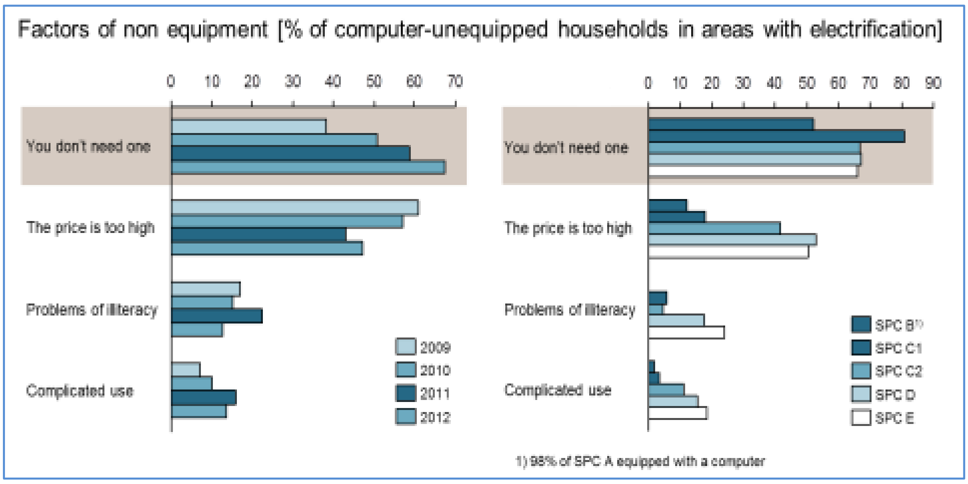
3.3.4. Sales of computers and tablets expected to increase further in 2013

On a base of 6.76 million Moroccan households in 2012, computers used by individuals are estimated at 4.058 million units. In total, nearly 2.9 million households are equipped with a computer and / or tablet (~ 43% of households in electrified area) with approximately 300,000 homes are equipped with a tablet (4.5% of households in electrified Area).

Personal computer and tablet equipment should grow strongly in coming years. Nearly one out of five Moroccan households (20%) intends to purchase or replace a computer and 5% of households are willing to purchase a tablet.

3.3.5. <u>The purchase price is a less significant barrier to purchase than in previous years</u>

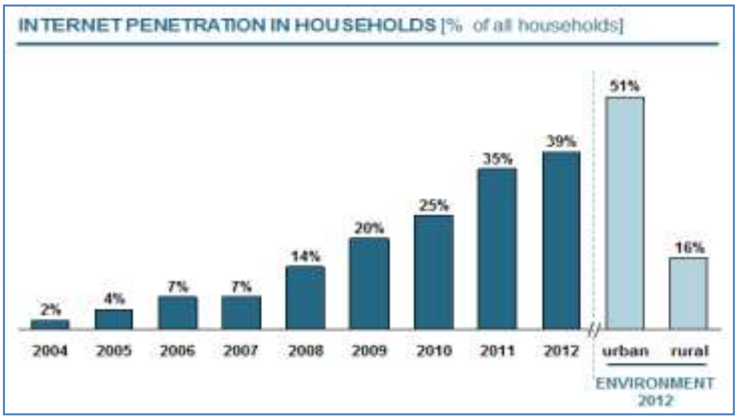
As in 2011, and unlike 2010, the main barrier to buying a computer in 2012 is no longer the high price but the lack of need. While the lack of perceived need is the main factor behind non-equipment of all socio-professional categories, the price factor is fairly logically held back by the lower SPC. For a significant part of Moroccan households, and in particular in low socio-professional categories, complexity of use and illiteracy also continue to be a brake on equipment.



3.4. Household access to the internet

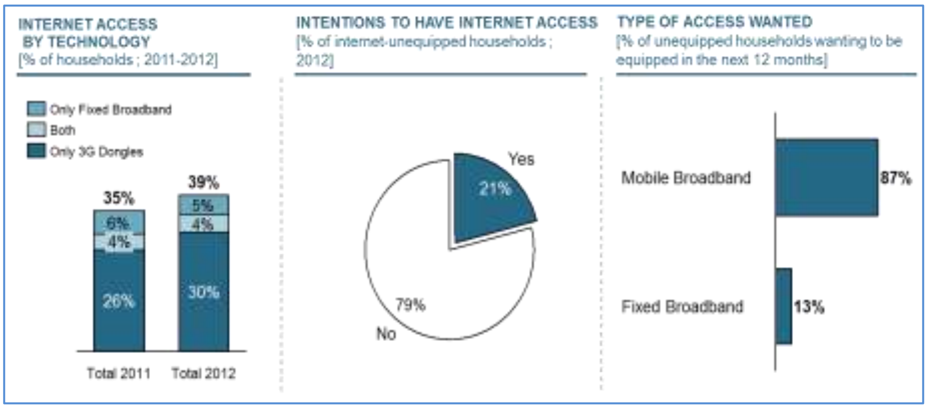
3.4.1. *<u>More than a third of Moroccan households is connected to the internet</u>*

39% of Moroccan households have an Internet connection; the penetration rate has increased quickly since 2008 (14%). Constant growth in Internet dissemination does not stop a certain number of inequalities: the disparity between rural and urban areas continues to be a great one.



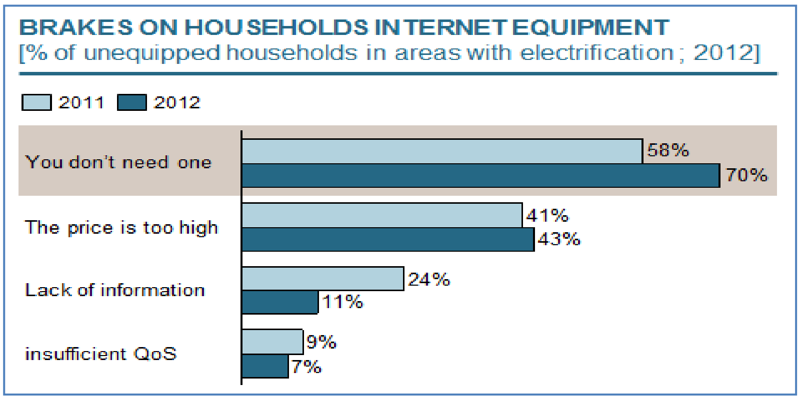
3.4.2. <u>The internet market access is developing thanks mainly to 3G</u>

The success of 3G dongles has contributed to the democratization of Internet access. In 2012, 30% of households are connecting to the Internet with their 3G dongles while 5% only use fixed line Internet and 4% use both. Internet equipment will continue to grow in 2013, 21% of unequipped households intend to access to internet in the next 12 months and mainly by using 3G dongles (87% among them)



3.4.3. *The lack of need and high prices are the main brakes on equipment*

61% of Moroccan households are not equipped with Internet. The main reasons for non-equipment, the same as those of non-equipment with computer, are the lack of need and prices that are too high. It should be noted that unlike the previous year, complexity of use is not cited as a brake on use and that fewer Moroccans exclude the Internet for economic considerations. Lack of information and insufficient QoS are marginal brakes and concern only 10% of the unequipped.

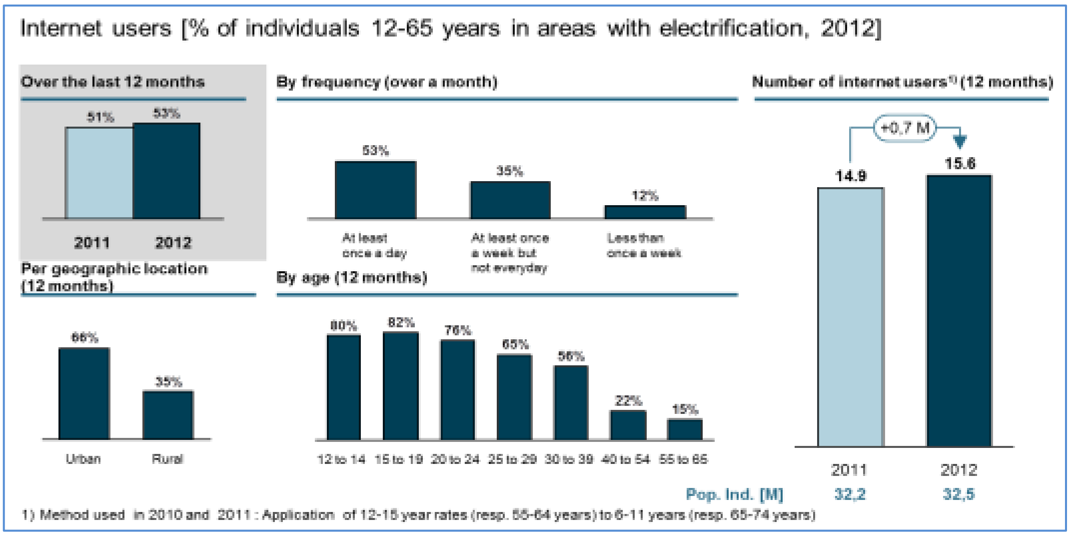


3.5. Internet uses

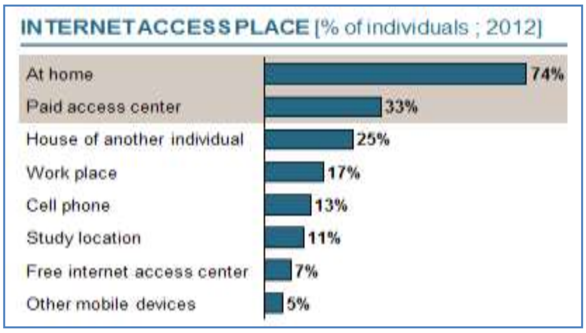
3.5.1. *More than half of equipped individuals connect to the internet every day*

In 2012, Morocco has 15.6 million Internet users, nearly a 700.000 more than in 2011.

Annual and monthly connections have proved to be stable between 2009 and 2010 while daily use has increased. On average, in 2012, 53% of Moroccan Internet users connected to the Internet every day and 35% of them at least once a week. This can be explained in part by more home equipment and less use of Internet access outside the home. Age and geographic location continue to influence connection practices heavily.



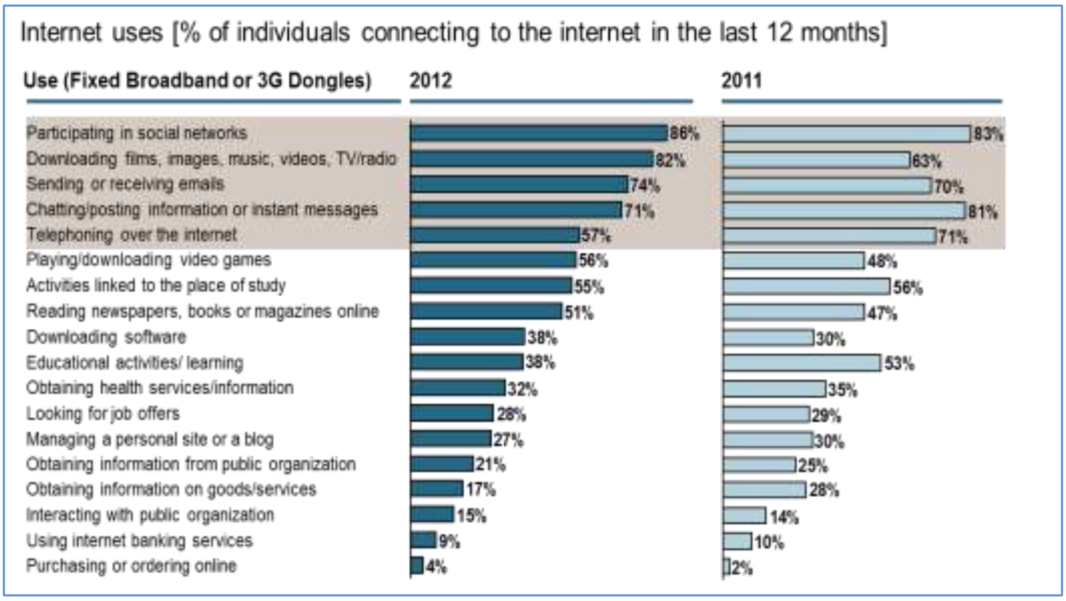
Cybercafés continue to be the main connection location outside the home, with 33% of connections, ahead of the home of another individual with 25% of connections. More than two-thirds of Internet users spend between 30 minutes and 2 hours per day on the Internet, mostly on social networks and news sites.



3.5.2. <u>86% of Moroccans connected to the internet are members of a social network</u>

Social networks represent the main Internet use of Moroccans: 86% of individuals connected to the Internet in the last 12 months participate in them.

In general, the Internet initially seems to be seen as a means of communication because a part from social networks use, the favored activities are downloading content, immediate messages, telephone over the Internet and sending e-mails.

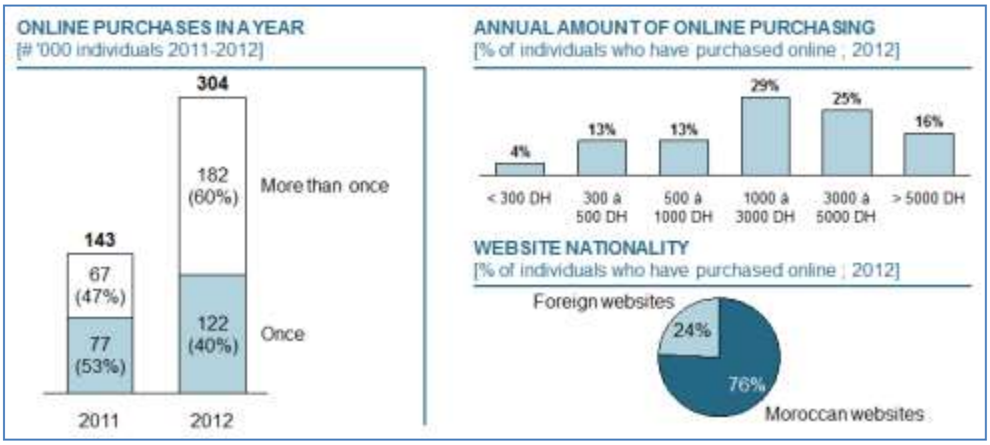


4. New services

4.1. E-commerce

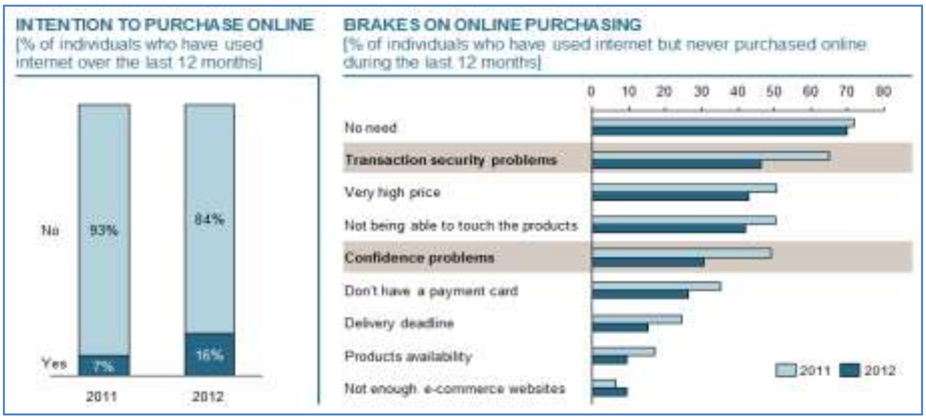
4.1.1. <u>More than 300.000 internet users have made online purchases in 2012</u>

Nearly 300.000 internet users have shopped online, twice than 2011. It is worth noting the strong growth in customers who bought several times a year (60% in 2012 versus 47% in 2011). More than the half of e-consumers has spent between 1000 and 5000 Dhs over the last year. Nearly 76% of the transactions are made on Moroccan websites.



4.1.2. <u>Online purchase intentions have grown strongly in 2012</u>

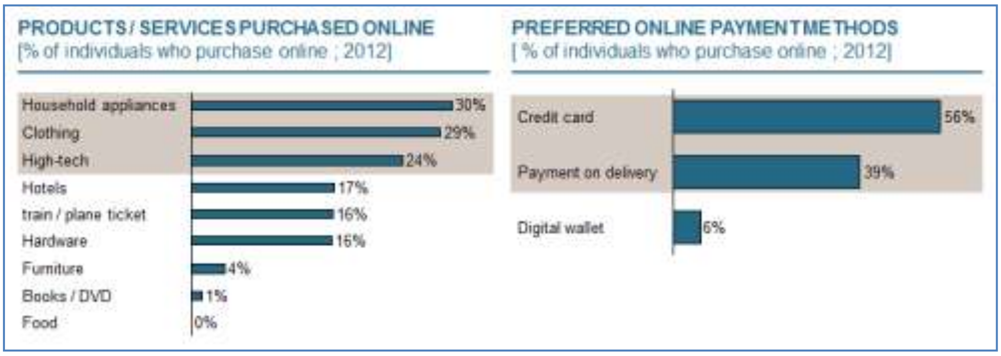
The intentions for online shopping experienced a strong increase of 9 points in 2012 growing from 7% in 2011 to 16% in 2012. This growth may be explained by the improvement of confidence in the e-trader and the improvement of transaction security.



4.1.3. *Most products purchased online are household appliances, clothes and high-tech items*

The most purchased products online are household appliances (30% of e-consumers), clothing and fashion products (29%) and High-tech (24%). Cultural and food products reach the bottom of the table.

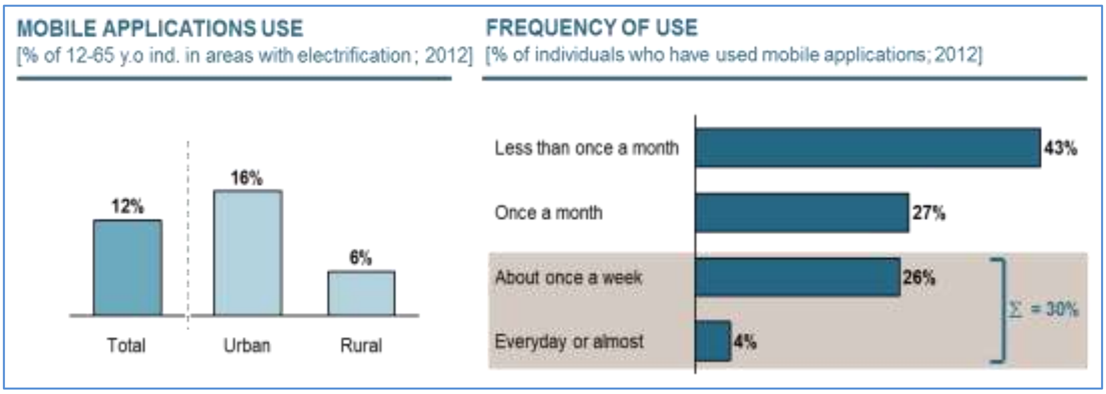
As for the payment options, the credit card are more frequently used (56%) against 40% for cash on delivery. The use of an electronic purse is marginal with only 6% of online consumers.



4.2. Mobile Applications and M-banking

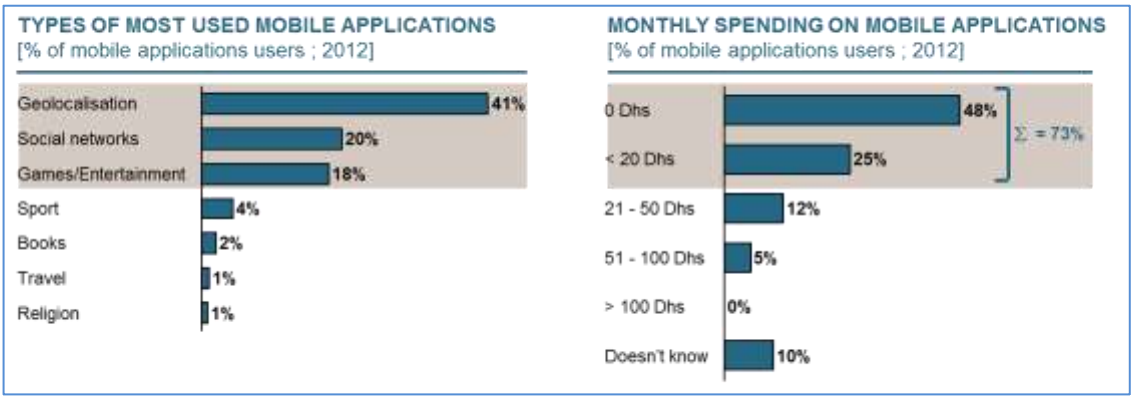
4.2.1. *Nearly 12% of individuals have used a mobile applications in 2012*

About 12% of individuals have used mobile applications over the last 12 months, and nearly a third uses mobile applications weekly. A 10-point difference has been observed between urban and rural area in the mobile application penetration rate (16% in urban area against 6% in rural area).



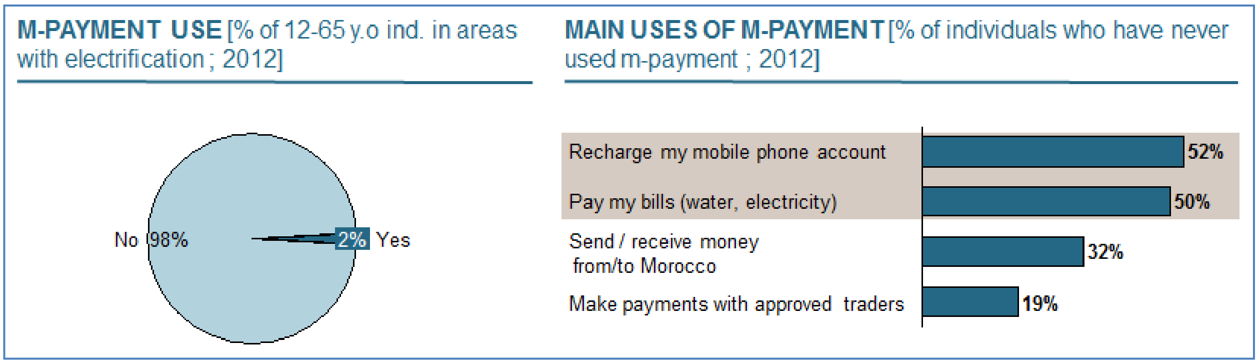
4.2.2. <u>The most used applications are geolocalisation-based ones, social networks and games</u>

The most used applications are geolocalisation-based applications (41%), social networks (10%) and games (18%). About half of the mobile-applications users select only free applications and nearly 73% spend less than 20 Dhs on applications per month.



4.2.3. <u>Currently, only 2% of Moroccans are interested in m-payment</u>

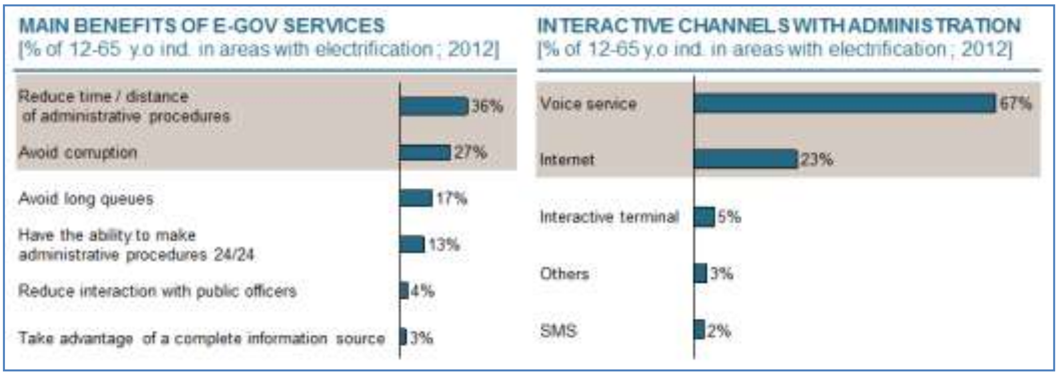
Only 2% of Moroccans use m-payment to make transactions. However, nearly half of Moroccans who don't use the service would be willing to use m-payment to pay bills (water, electricity, etc.) or to recharge their mobile accounts. Payment in shops represents only 20% of individuals.



4.3. E-Gov Services

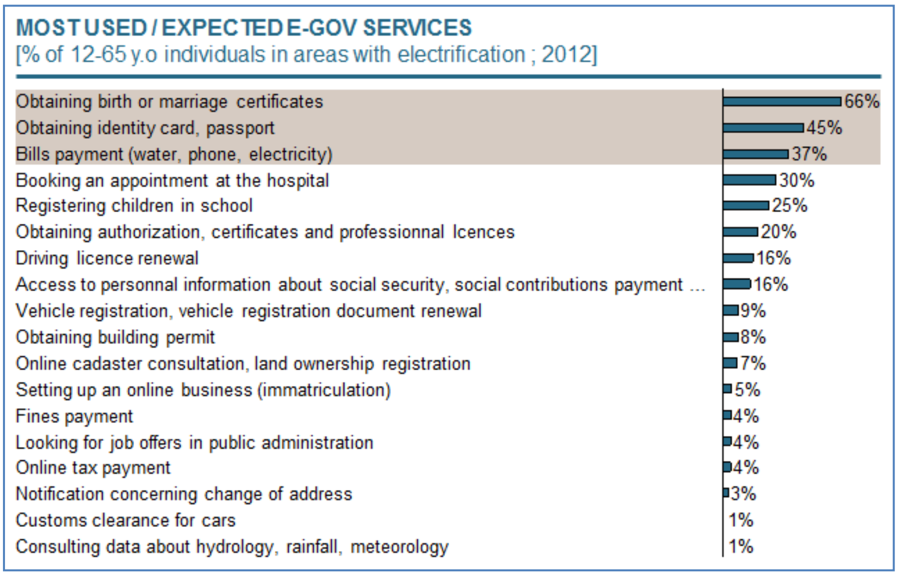
4.3.1. <u>Moroccans think that E-Gov services save time and promote transparence</u>

E-Gov services save time and distance for administrative formalities for nearly a third of Moroccans and are a good means for avoiding corruption for 27%. The preferred interaction channel with the public administration is the voice service (67%), then internet (23%).



4.3.2. <u>The most used E-Gov services are administrative documents requests and bill payment</u>

More than 45% of individuals use or are willing to use E-Gov services to request administrative documents (birth certificate, passport…) and about 30% to pay bills. E-Gov services for businesses (starting a business, paying taxes) are rarely used or expected by the citizens and interest only 5-10% of individuals.



4.3.3. <u>Nearly half of individuals are ready to pay about 2-5 Dhs for an E-Gov service</u>

Nearly half of individuals are ready to pay to benefit from E-Gov services and nearly 56% of these individuals are willing to pay between 2 and 5 Dhs per transaction. Only 2% of people are willing to pay more than 20 Dhs to receive an e-Gov service.